

# Interim Broadband Committee

Department of Administration  
21 July 2015

# Overview

- History of the Idaho Education Network
- Service Status: Agency Broadband
- Broadband Analysis: SB1175

# History of the Idaho Education Network



# Key Operating Perspectives

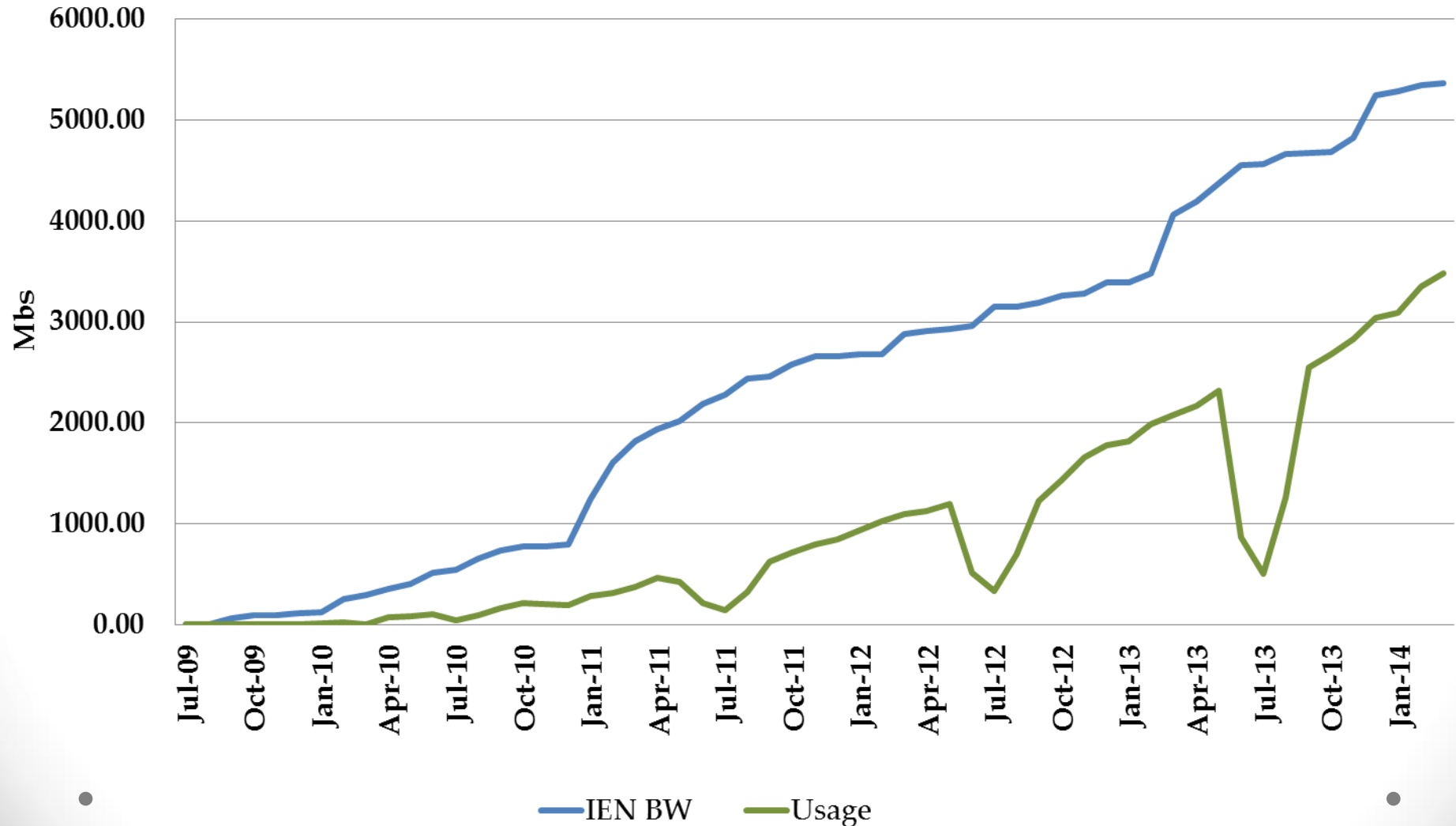
1. Think long-term (6-10 years)
2. Emphasize acceptable technology
  - a) Prioritize fiber optic infrastructure
  - b) Prioritize Ethernet technology
  - c) Fiber TDM, Copper, and Microwave where necessary
3. Infrastructure for rural districts
  - a) Supplier capital is a must
    - i. Longer term contracts provide incentive

# Key Operating Perspectives

4. Amortize infrastructure costs
  - a) Allowed E-rate to subsidize infrastructure
  - b) Longer term contracts advantageous here too
5. **NEW:** Private network only for those districts sharing curriculum
  - a) Public internet for others
6. **NEW:** VTC only for affirmative use

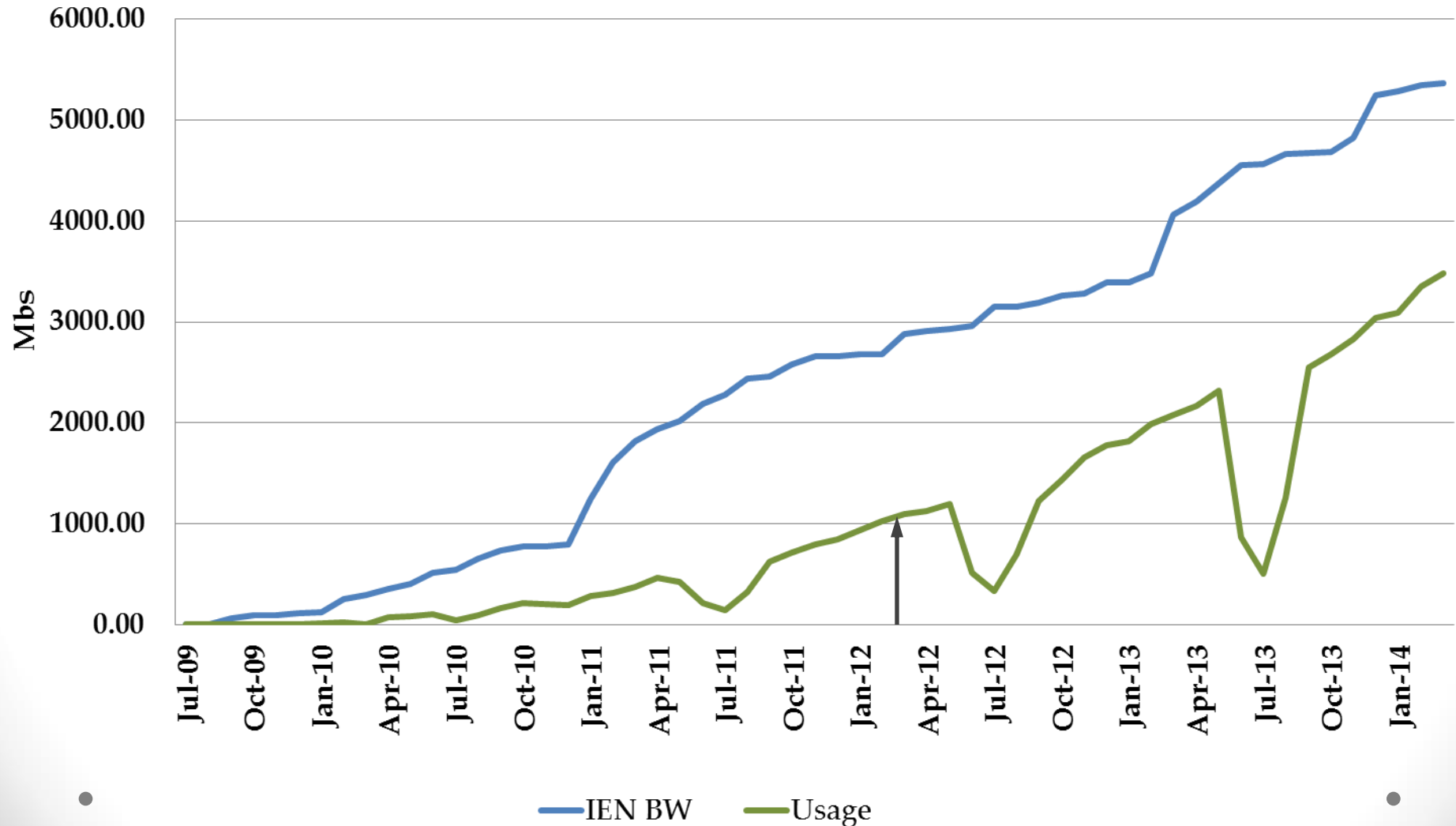
# IEN Purchased vs. Utilized BW

All Districts



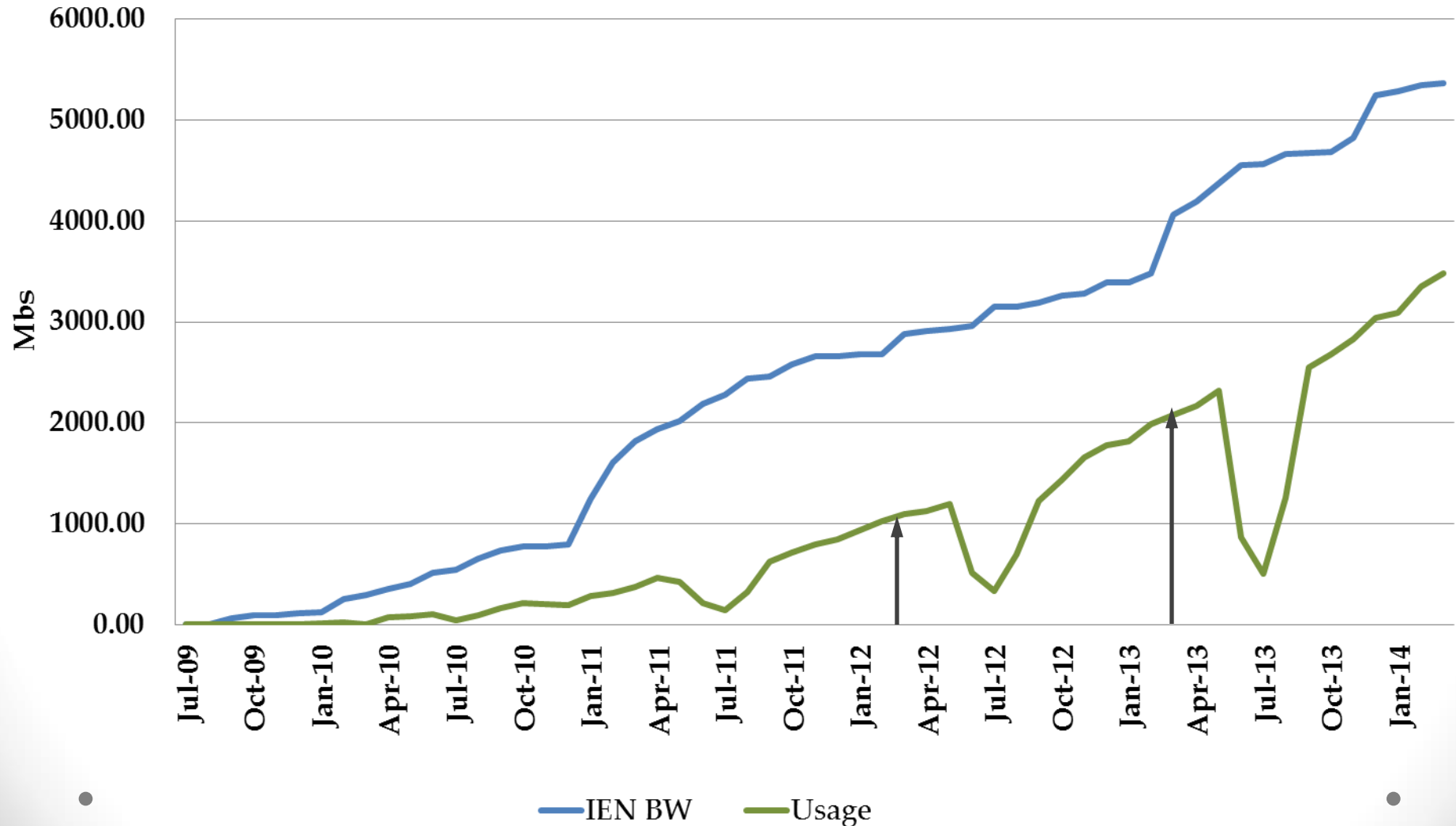
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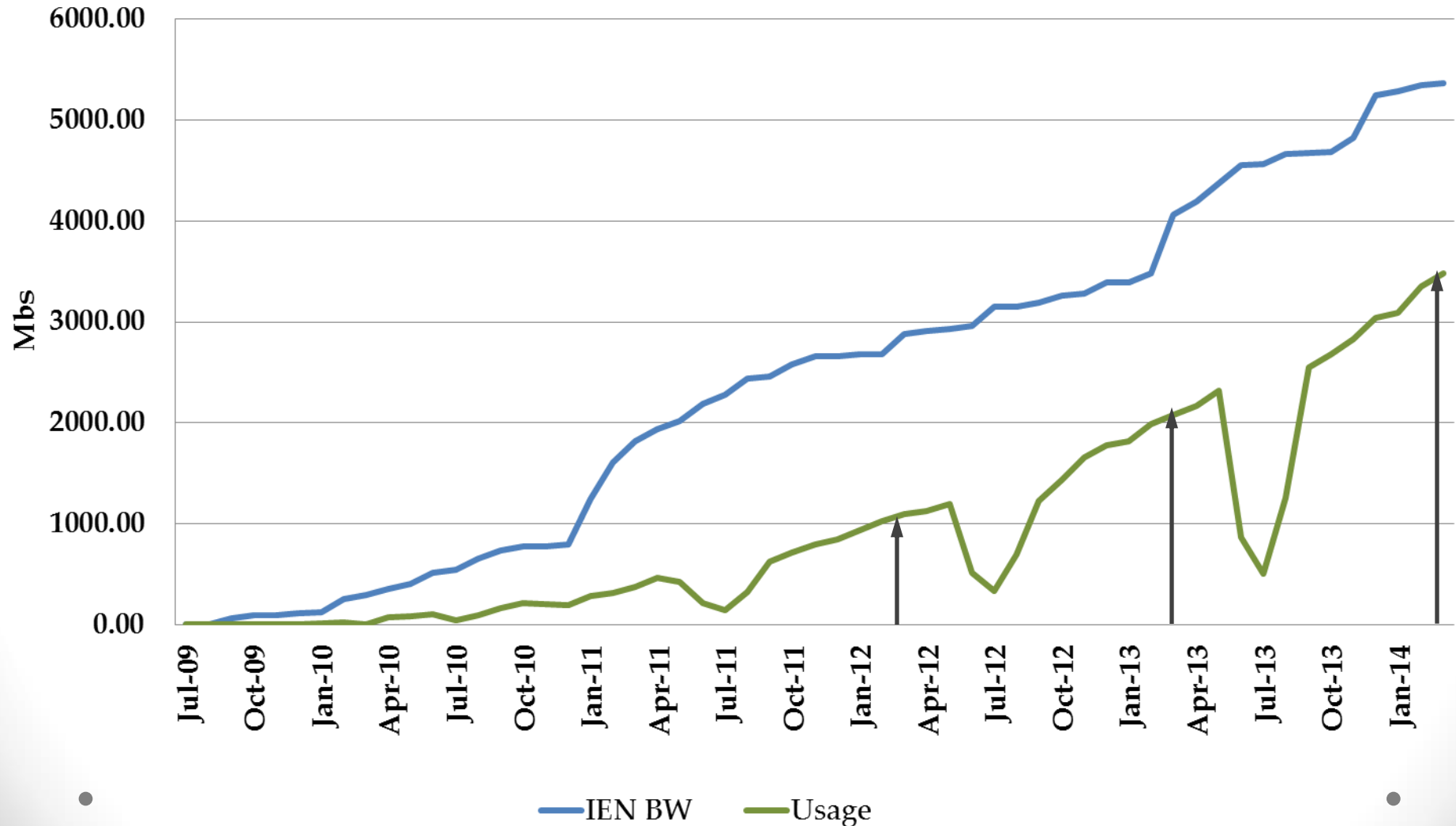
All Districts





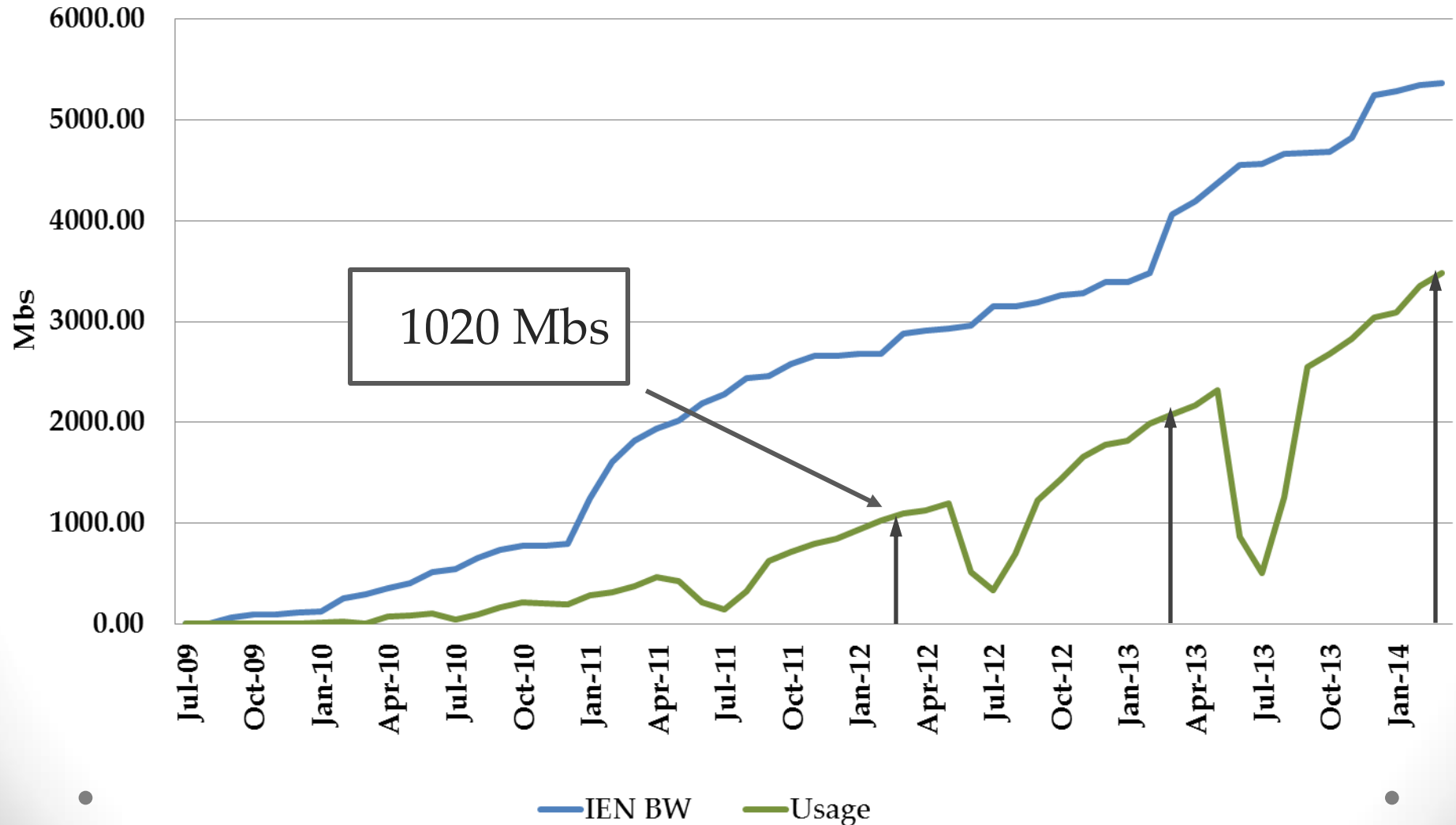
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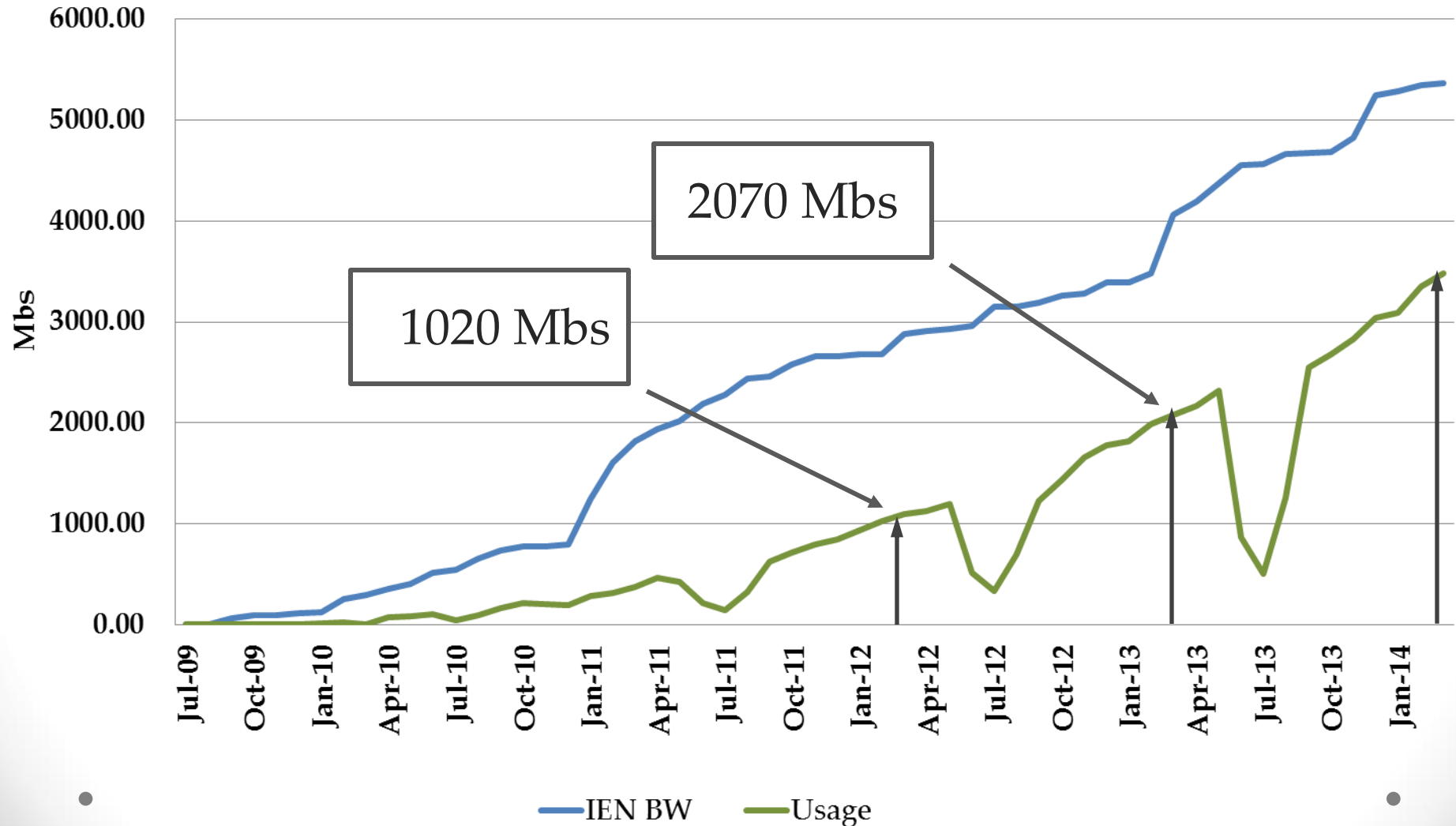
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All Districts



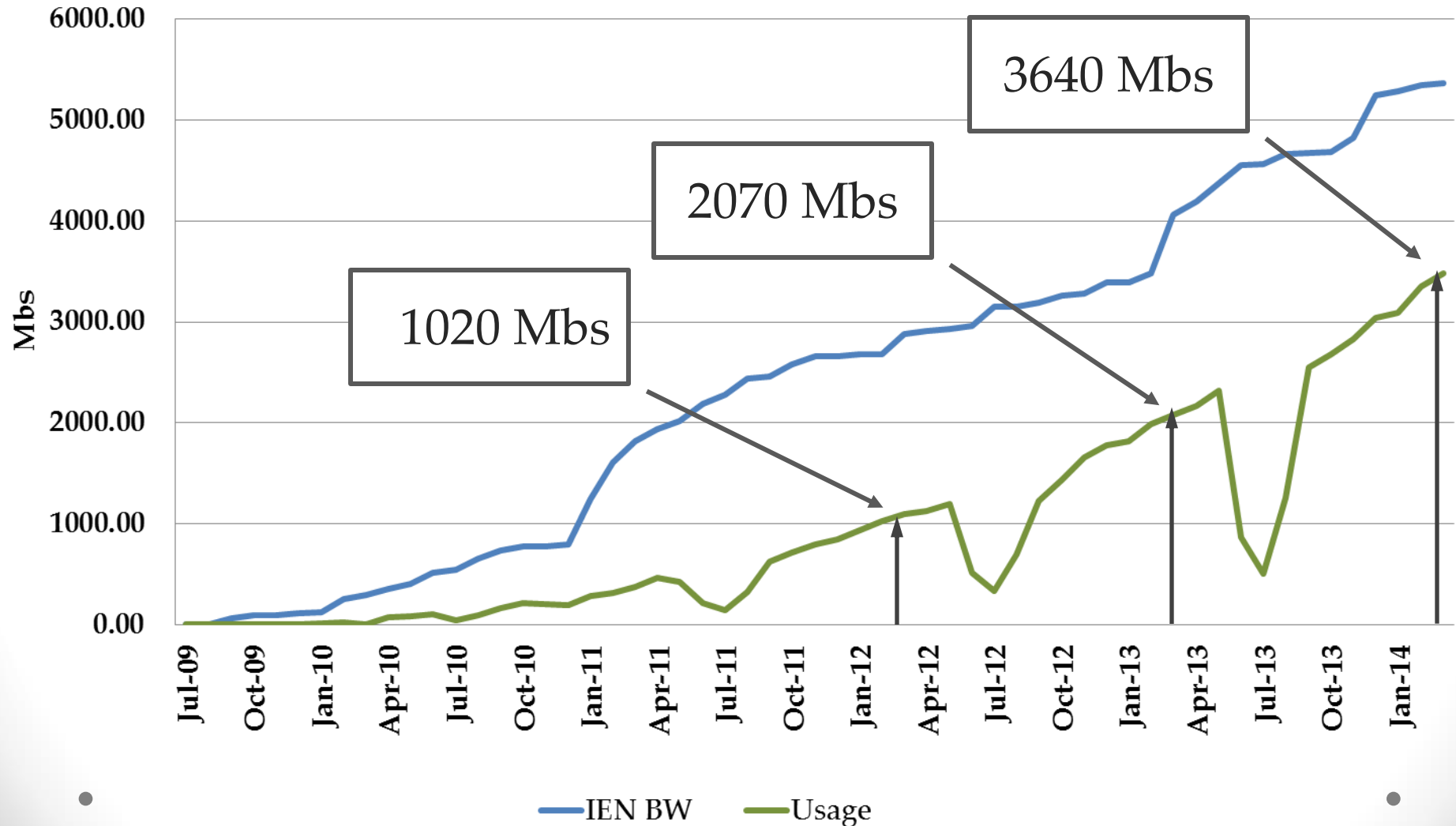
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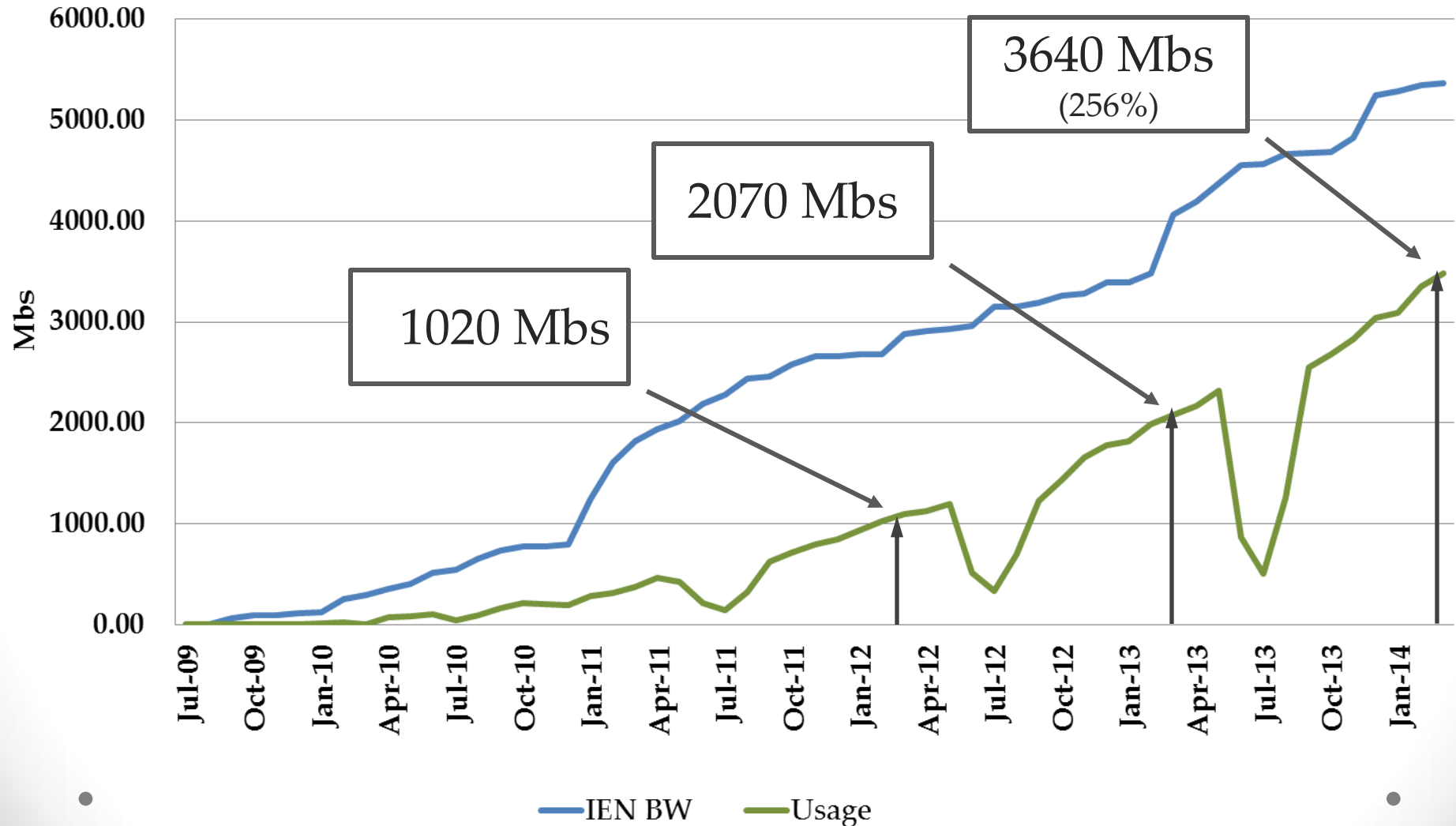
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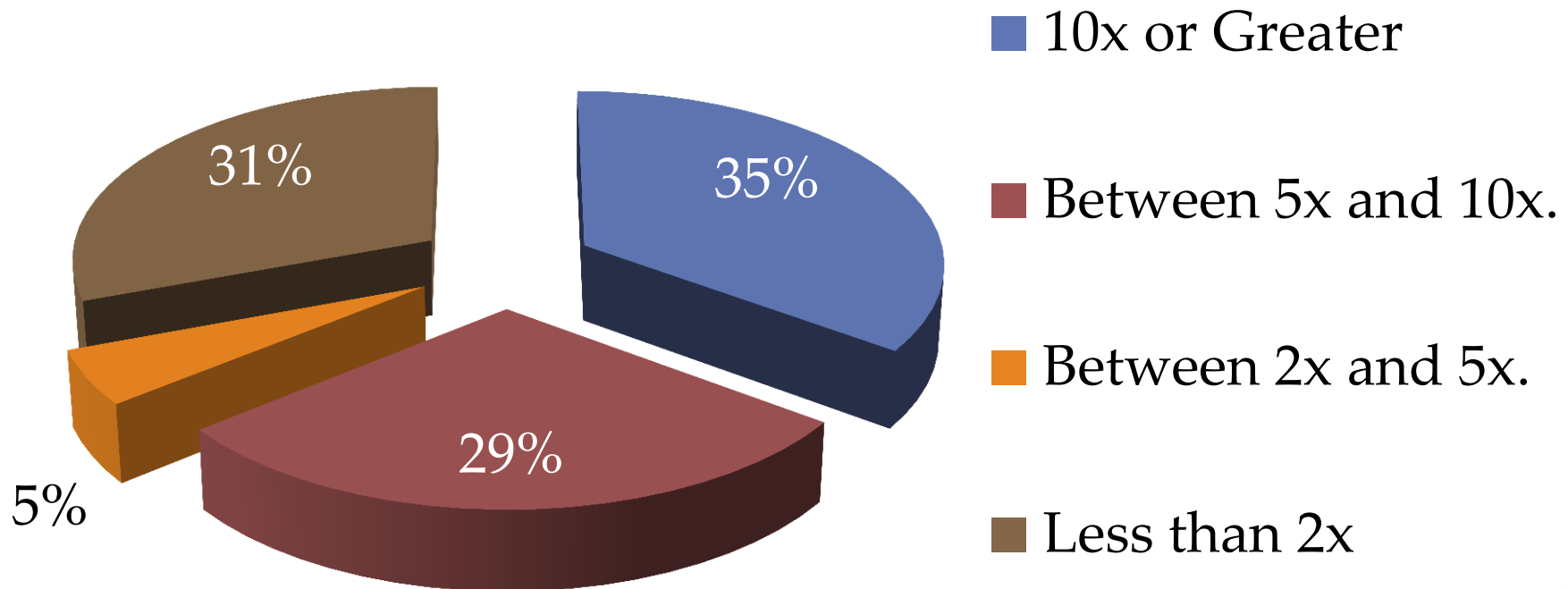


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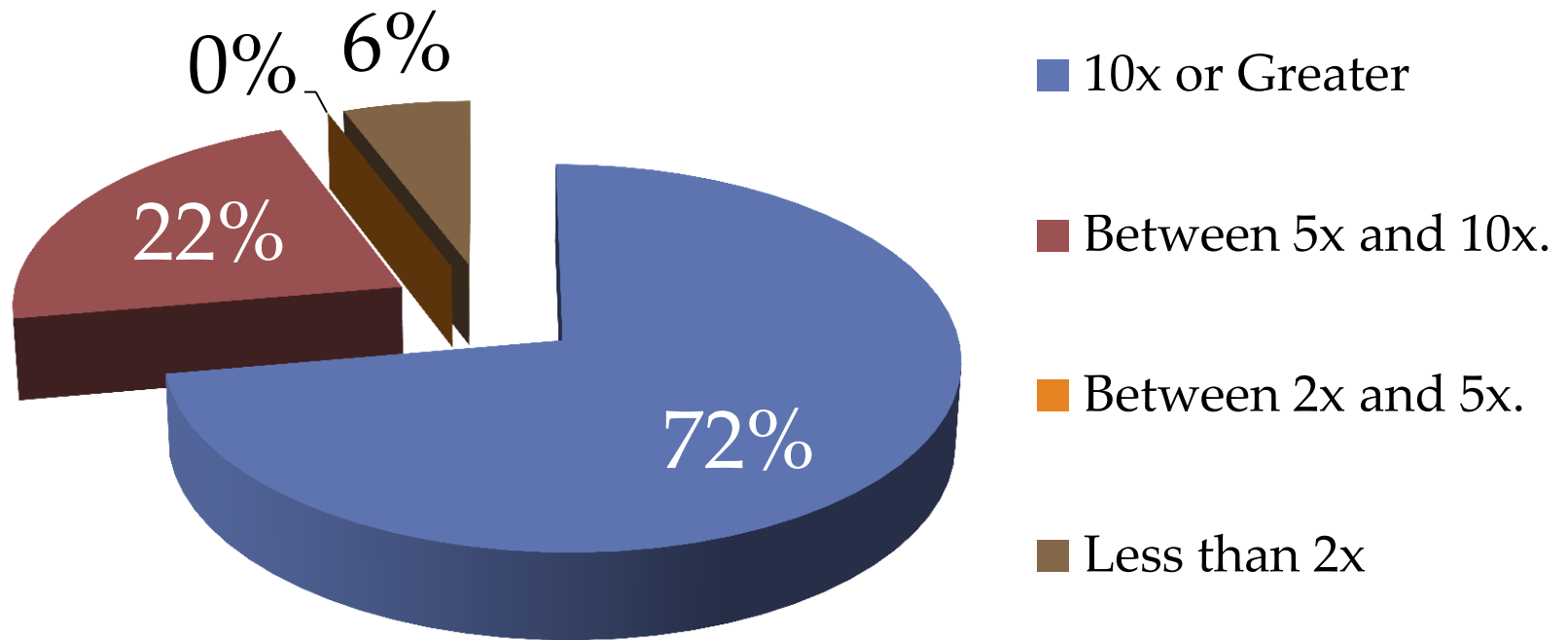
All Districts



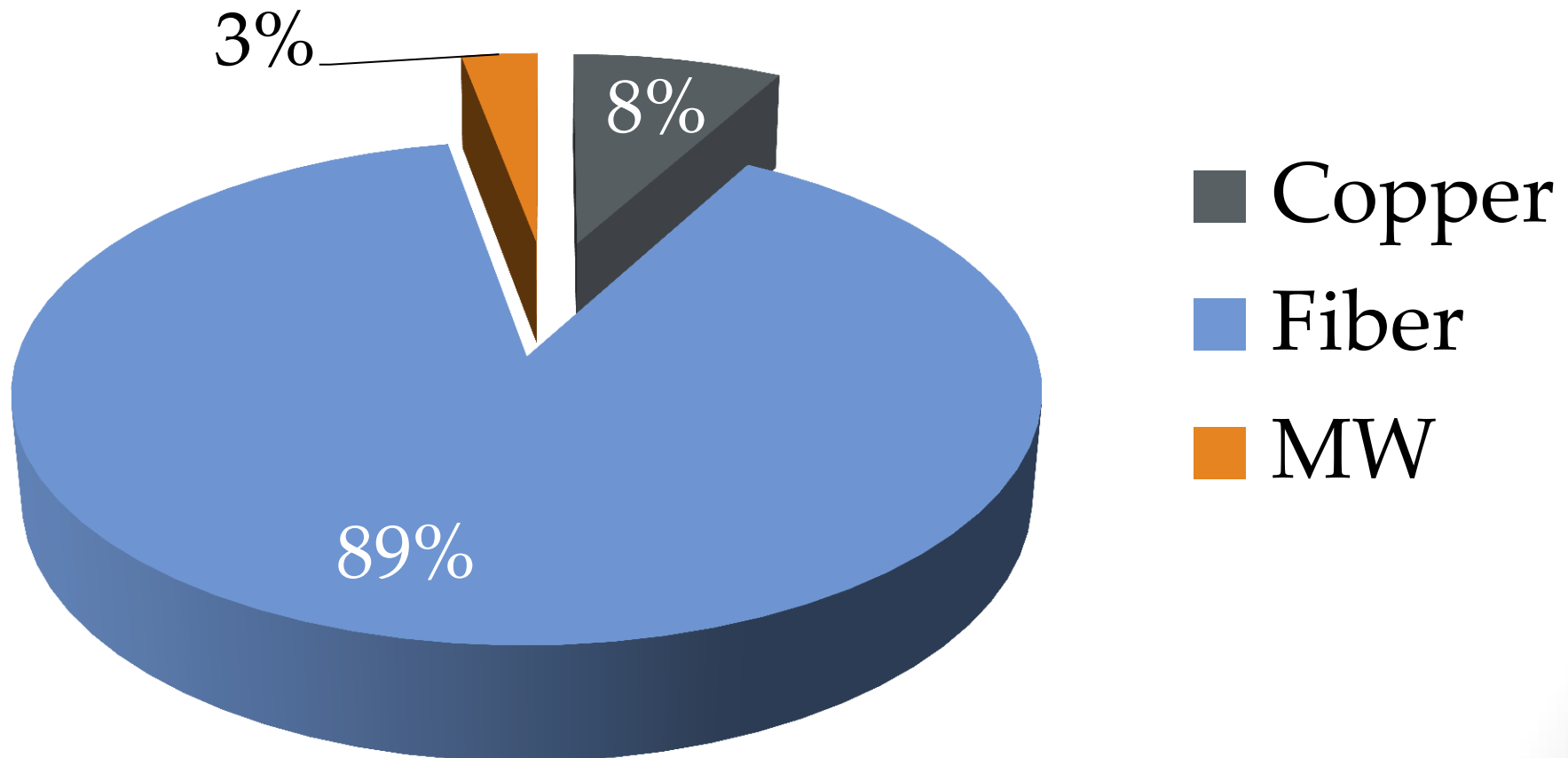
# IEN Growth Capacity - 2011



# IEN Growth Capacity - 2013



# IEN Infrastructure – 2013





# IEN Contracts in Operation

## Education Networks of America

## CenturyLink

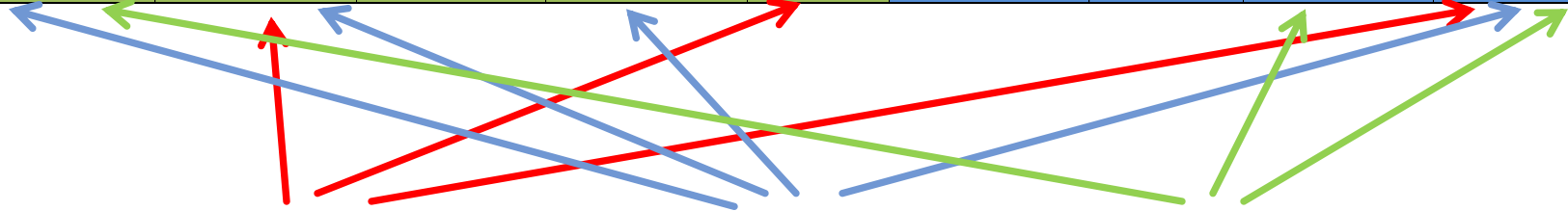
Understood ENA Subcontractors: <u>CenturyLink - SBPO 1308</u> ; Frontier; TekHut, First Step; Ednetics; Custer Telephone					Understood Qwest/CenturyLink Subcontractors: Syringa; Frontier; Potlatch Telephone				
Totality of Services Available to Public Agencies: "Same or similar property" contracts per Idaho Code 67-5718A (1) (a - c)									
Contract with ENA: SBPO 1309					Contract with Qwest/Century Link: SBPO 1308				
Project Management	E-Rate Telecom	Non-Erate Telecom	Videoteleconference	Other Services	Project Management	E-Rate Telecom	Non-Erate Telecom	Videoteleconference	Other Services

Services from Entirety of Contracts: Purchased per Idaho Code 67-5718A (3)		
\$1,720,000/Annually (approx. telecom)	\$8,335,000/FY 13	\$1,974,000/FY 13 (telecom)
<b>Schools/Districts: augmenting, adding services</b> (directly from School/District to ENA)	<b>Dept of Admin: implementing Education Network</b> (identified in Amendments 1 to each contract) (Note: E-Rate services purchased only through ENA)	<b>State Agencies: supporting Agency Business Operations</b>

**Schools**

**IEN**

**Agencies**

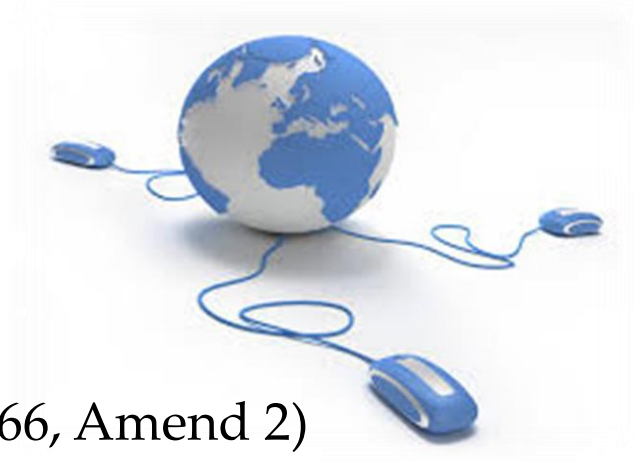


# Agency Broadband Status



# Agency Broadband Status

- Emergency Contract
  - 6-month term
  - 27 Feb to 27 Aug 2015
  - 120 day transition
- Request for Proposals (15000766, Amend 2)
  - Start: 17 Jun
  - Proposer conference: 24 June
  - End: 3 Aug, 5:00pm MDT
  - 12-month term
  - On track



# Broadband Analysis: SB 1175



# Broadband Analysis: SB1175

- Legislative Intent Language
- Analysis

# Analysis

- Costs



- Benefits



- Flexibility





One-time

Cost to Contract

Recurring

Aggregation





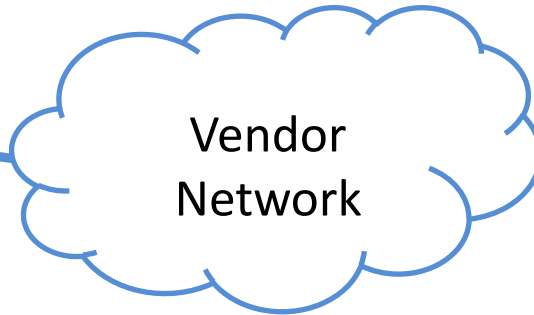
Monthly recurring costs are *“dictated by length of contract and revenue.”*

Danellie Young  
Director of Research for Networking and  
Communications Services, Gartner  
(2015)

Agency A



\$600



Vendor  
Network

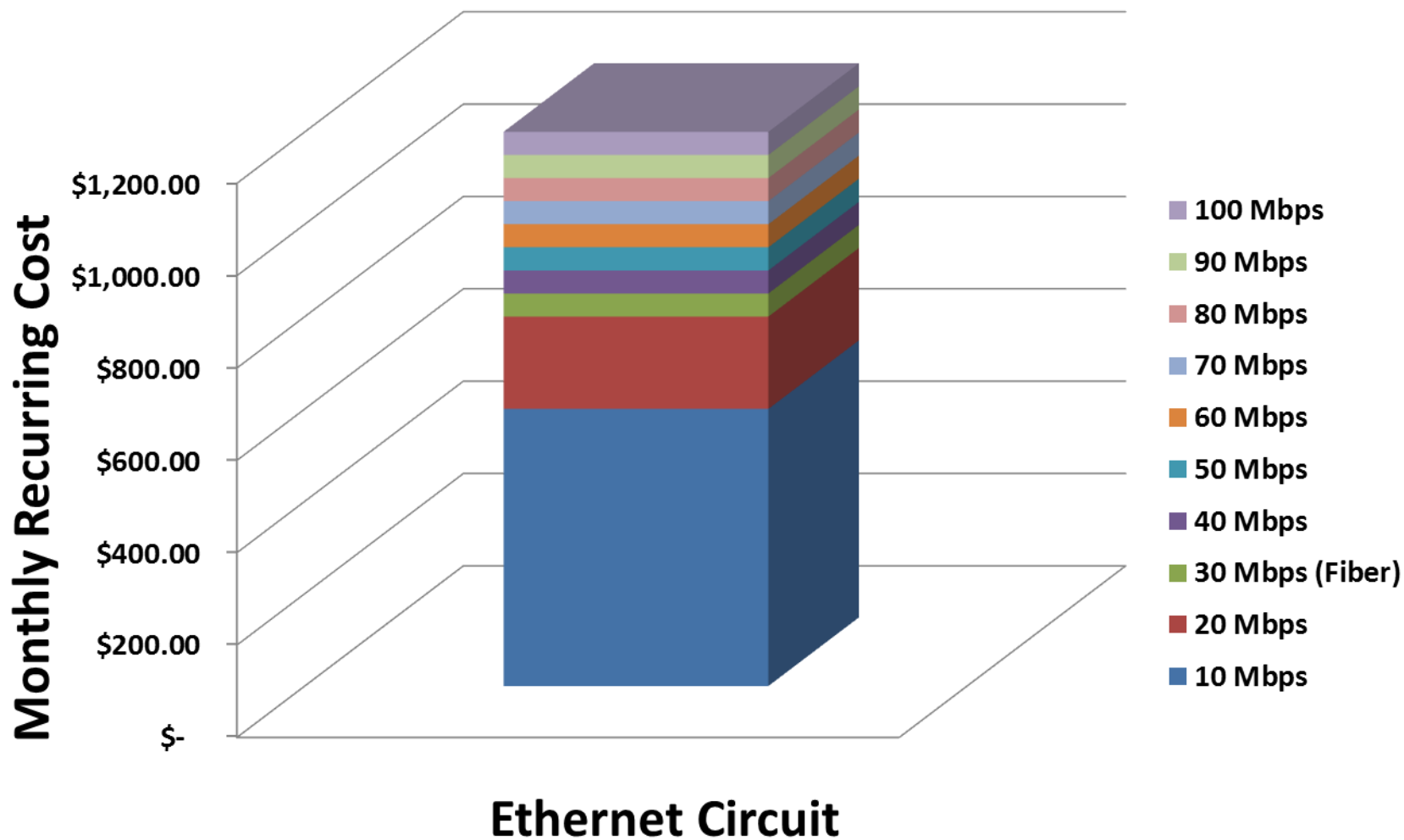
\$600

Downtown



Simple Broadband Example: 10Mbps Ethernet

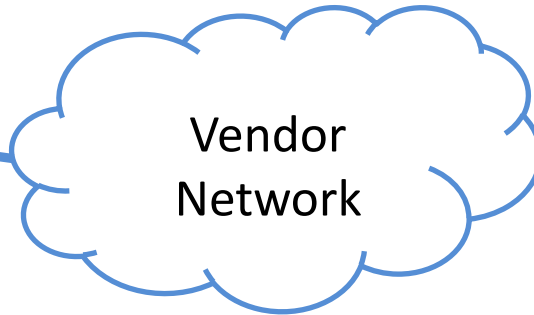
## Incremental Costs for Ethernet Circuit (10-100 Mbps)



Agency A



\$600



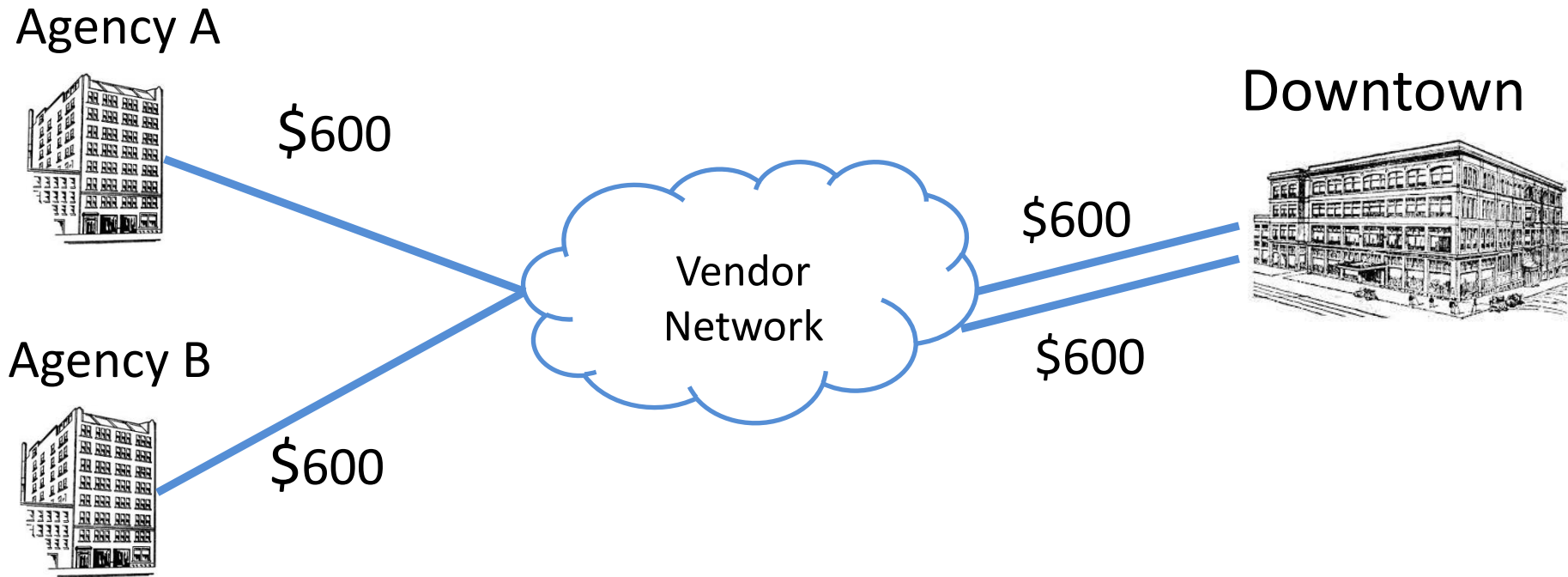
Vendor  
Network

\$600

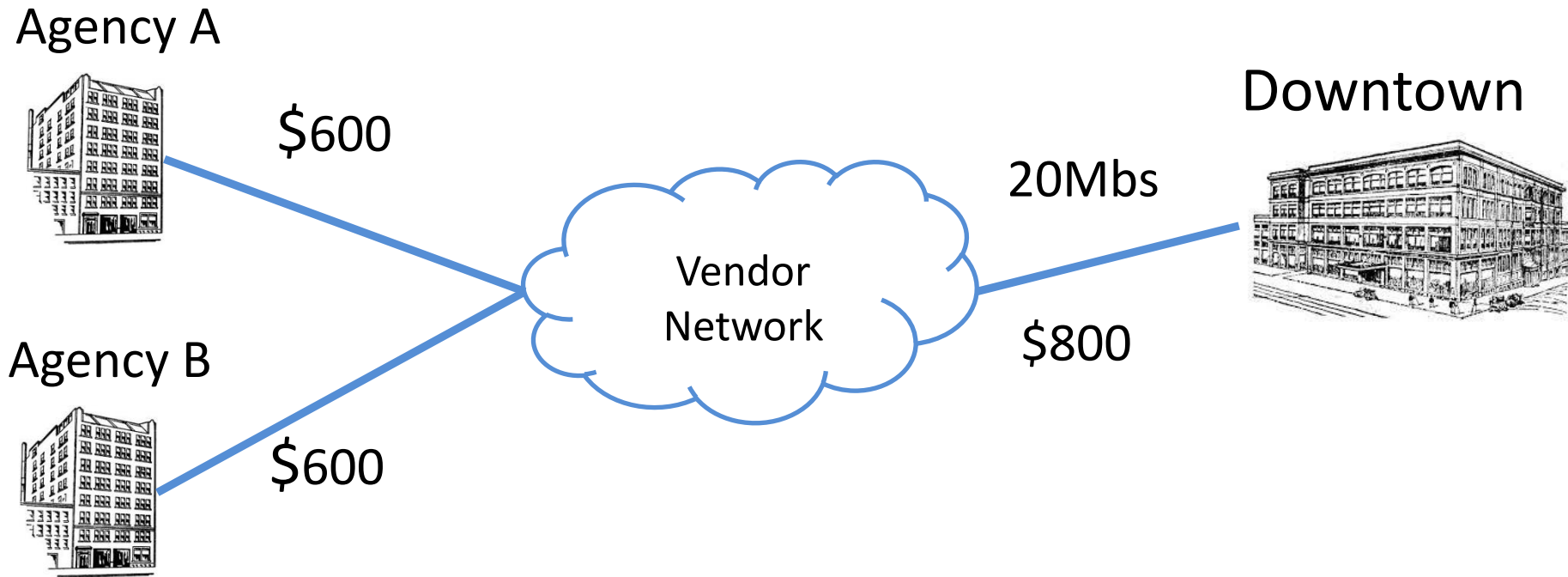
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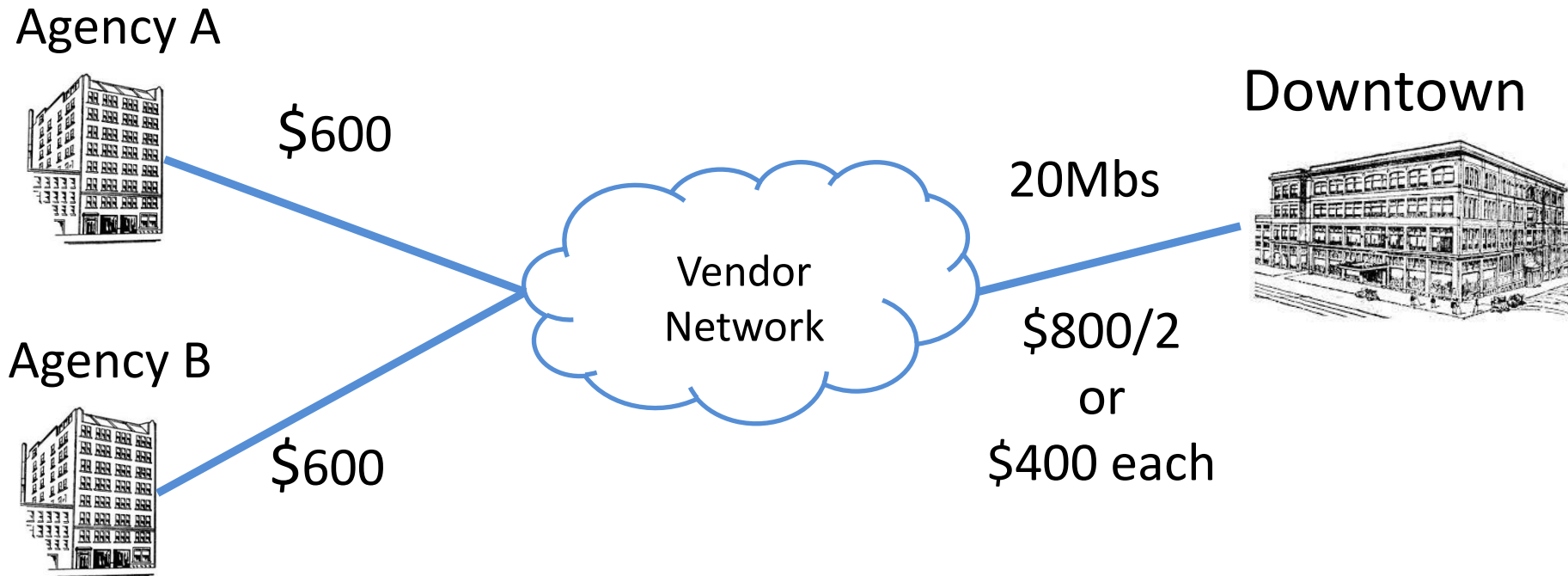
Simple Broadband Example: 10Mbps Ethernet



Multi-agency Broadband: 10Mbps Ethernet



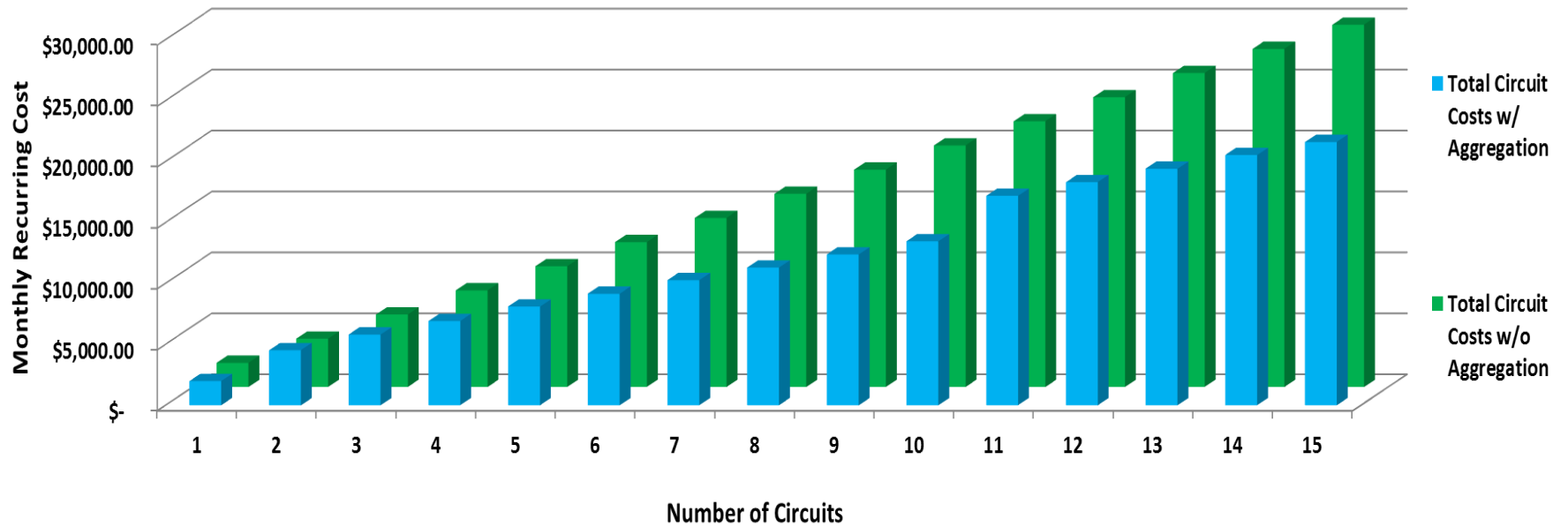
Aggregate Broadband: 10Mbs Ethernet



**Repeat hundreds of times!**

**Aggregate Broadband: 10Mbps Ethernet**

Individual Circuit vs. Aggregated Circuit Costs





# Cost to Contract

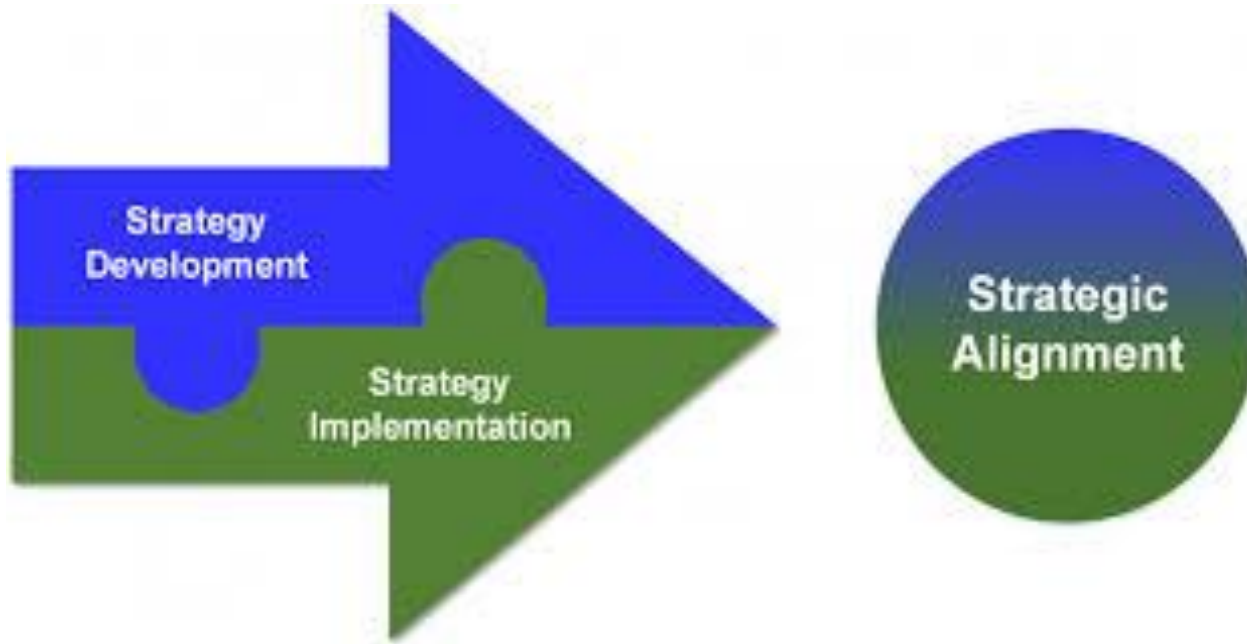




Strategic Alignment

Effectiveness and Reliability

Cybersecurity



“network service offerings to all agencies”



# Effectiveness and Reliability



*“[individual procurement] could provide for some lower pricing in some cases, often consumer grade services are leveraged as a tradeoff or for convenience ... typically offered with less robust SLAs and best effort service....”*

Danellie Young  
(2015)

*“[aggregated statewide contract] will not only be easier to manage, but will provide better pricing, performance levels and improved long term partnership to insure broader services are made available in support of your longer term network evolution.”*

Danellie Young  
(24 March 2015)

Vendor deployment of Ethernet and fiber  
*“are more likely when customers are  
committed to longer term contracts.”*

Danellie Young  
(24 March 2015)





# Flexibility



Technology Vendors

Con**clu**sion



